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ECONOMIC SUPPLEMENT FOR BUREAU OF LAND MANAGEMENT RICHFIELD DISTRICT UTAH

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TABLE OF CONTENTS

Page

I Summary 1 - 3

II Introduction and Background 4

III District Economy 5
- A. Population 5
- B. Income 5
  - 1. Percapita Personal Income 5
  - 2. Personal Income by Source 6
  - 3. Effective Buying Income 6
- C. Employment 7
  - 1. Employment by Sectors and Major Industries 7
  - 2. Unemployment Rates 7

IV Contribution of BLM Resources 9
- A. Livestock 9
- B. Livestock Dependency on BLM Forage 9
- C. Economic Factors Incluencing the Livestock Industry 10
- D. Resource Areas 11
- E. Impact of BLM Production on the DSR Economy 11
- F. Projections to 1980 12
- G. Merchantable Wood Products 13
- H. Recreation 13
- I. Mineral Production 15

Bibliography 19

INDEX OF TABLES

Table	Name	Between Pages
	Map of Richfield District Statistical Region	1 - 2
1	Population of Counties	5 - 6
2	Population By County and District Statistical	5 - 6
3	Current and Projected Populations of Counties	5 - 6
4	Percentage of Population By Broad Age Groups	5 - 6
5	Populations by Sex	5 - 6
6	School Enrollment in Utah	5 - 6
7	Components of Population Change	5 - 6
8	City Populations	5 - 6
9	Percapita Personal Income	5 - 6
14	County - Land Area and Populations	5 - 6
10	Number of Families and Income	6 - 7
11	Personal Income and Percent Change	6 - 7
12 A	Income Data for Piute County	6 - 7
12 B	Income Data for Sevier County	6 - 7
12 C	Income Data for Wayne County	6 - 7
13	Effective Buying Income	6 - 7
15a	Average Agricultural Employment in Piute County	7 - 8
15b	Average Agricultural Employment in Sevier County	7 - 8
15c	Average Agricultural Employment in Wayne County	7 - 8
16	Estimated Agriculture Employment	7 - 8
17	Major Industry of Employment	7 - 8
17a	Major Industry of Employment (continued)	7 - 8
18	Value of Farm Products Sold	9 - 10
19	Five Leading Products by County	9 - 10
26	Livestock Feed (Range Forage) Consumption	9 - 10
20	Livestock Numbers - Cattle and Calves	10 - 11
21	Livestock Numbers - Sheep and Lambs	10 - 11
22	Number of Operators - Permitted Livestock & AUM's	10- 11
23	Average Size of Farm by County in DSR	11 - 12
24	Farms in Utah by Size of Farm	11 - 12
25	Per Cent of Farms by Size	11 - 12
27	BLM Range Forage Consumption and Value to DSR Personal Income	11 - 12
28	Potential Increase in Forage by Planning Unit	12 - 13
29	BLM Wood Product Sales by County	13 - 14
30	Estimates of Public Outdoor Recreation Use	14 - 15

Index of Tables - Page 2

Table	Name	Between Pages
31	Estimated Tourist Days	14 - 15
32	Amounts of Expenditures Received by Counties	14 - 15
33	Value of Mineral Production	16 - 17

Illustrations:

1	Resource Products or Uses	3 - 4
2	Estimated Value of Product or Use Per Unit	3 - 4
3	Estimated Value of Product or Use (Dollars)	3 - 4
4	Estimated Dependence (Percent of Income)	3 - 4
5	Resource Products or Uses	3 - 4

Exhibit:

1	Number of Permitted Livestock Operators (Cattle and Sheep)	11 - 12

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I. Summary

The Richfield District Statistical Region (DSR) consisting of Piute, Sevier and Wayne Counties, is located in South Central Utah. The area contains 6.2% of the land area of Utah, but only 1.5% of the population. Past population trend for the DSR is downward (-5.3% (1960-68), however, populations for the period from 1970 to 2000 are projected to increase + 43% as compared to a +46% increase for the State of Utah.

Average percapita income for the DSR is $1,381. (1965). This is only 59.1% of the State average for the same year. Adjacent DSR's, Fillmore and Price, were 69.0% and 71.9% of the State average respectively for the same period. Total personal income increased in the DSR from $19,147,000. in 1959 to $25,825,000. in 1969. This was a 34.8% increase as compared to a 72.14% increase for the State. Median family income in the DSR is $4,116. (1959). 19% of the median family incomes were below $2,000., 41.7% between $2,000. to $4,999. and 39.3% was $5,000. or more. The State of Utah was 8.3%, 27.8% and 64.0% respectively for the same period.

Salary and Wages exceeded all single sources of personal income (1965). Proprietorship (includes farming) was next high in Piute and Wayne Counties, but was lowest in Sevier County. Government topped all other sources of wage and salary receipts. Wayne County was high with 82.7% followed by Piute and Sevier with 54.7% and 30.9% respectively.

Mechanization, larger acreages and low farm incomes resulted in a sharp decline (52.5%) in agricultural employment (1950-1965) as compared to 46.9% decline for the State of Utah. Further declines are expected due to the above factors.

Unemployment in the DSR prior to 1965 was unstable and erratic generally being above state averages. However, by 1965 only 2.8% was unemployed as compared to the State average of 5.7%. Migration from the rural areas was the probable cause of the shift.

BLM Forage contributed 85,200 AUM's to the DSR economy valued at $568,284. (1969). This forage contribution amounts to 28% of the total region AUM consumption as compared to 33% on a State basis. This $568,284. income to users would create a region economic impact of $1,136,568. This represents 4.4% of the entire region personal income. The impact would amount to $1,576,830. on a State basis. Cattle sales top all other livestock and crop products in the region being 88.3% of total farm products sold. Crops and miscellaneous livestock account for the remaining 11.7%.

During the period 1950 to 1968 cattle and calf numbers increased 27.8% in the region. During this same period the increase on a State basis was 35.7%. Trends in number of sheep during this period have been opposite that of cattle. Sheep numbers decreased 17.7% in the region and 23.1% in the State. The trend of larger livestock operations and fewer operators is also true in farm and ranch acreages. From 1880 to 1964 individual farm acreage increased 418%. During the period 1930 to 1964 the number of farm operators decreased 48.0%. 1/

Projected demands for livestock feed (1980) is closely associated with the projected demands for beef and lamb meat products. According to the best information available, a 33% increase in livestock forage will be required. Primary estimates indicate that the BLM lands in the region can meet this increase by 1980 through improved management systems, seedings, sprayings etc. Funding to implement these practices are uncertain.

Merchantable Wood Products in the region are of minor importance. In 1969 the combined sales of Christmas trees, firewood and posts amounted to $2,034. District inventories indicate there are 9,230 acres of scattered commercial saw timber in the DSR. Present stands are considered to be more important for scenic, watershed and recreation purposes than for saw timber values. Projected demands are expected to increase 200% by the year 2000. It is not likely that BLM lands will contribute to this projected need.

Recreation Resources of the region are significant. Essentially all of the near two million acres of public lands are open to sightseeing, camping, picnicking, hunting, fishing, rockhounding and open space. BLM, to date, has made considerable expenditures in the development of four camping and picnicking areas. In 1968 it is estimated from tourist expenditures that 475,500 tourist days were spent in the DSR. (This includes the total of Garfield County.) This is 10% of the State total. Further estimates indicate that the DSR received $1,211,000. from outdoor recreation and tourism. This is 3.2% of the total State receipts.

Future Outlook is bright for recreation resources in the area. Improvement of State Highways 89, 95 and 276 along with Interstate 70 will increase the demands for outdoor activities. (Estimated at 10% per year). Lack of funds for development will be the limiting factor in meeting these projected demands.

1/ Information from Economic Profile for Subject Counties 1967.

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Gypsum Production exceeds all other minerals in the DSR. Coal ranks second. The mills in Sigurd presently employ 185 people with an annual payroll of $1,352,000. This amounts to about 8.7% of all personal income in Sevier County and 3.4 times the income from farms. Mineral production increased in value from $1,674,000. in 1961 to $2,480,000. in 1966. This is a 48.1% increase as compared to a 6.6% increase for the State. In 1966 the value of minerals ($2,480,000.) amounts to 23% of the value of all agricultural products produced in the DSR and 12.7% of the total personal income. Gold, lead, copper, zinc, alunite, uranium, bentonite and clay are found in the DSR in varying amounts. Price conditions in recent years have been unfavorable for exploiting the deeper, low grade ores. Oil and gas exploration increased significantly during 1969. Over the years, several oil and gas drillings have been made but with no apparent success. Sand and gravel is found in abundance and is used primarily in highway construction with lesser amounts in commercial construction uses.

Future increases in mineral production are not expected until ore prices are more favorable to cover the high costs of labor and processing.

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ILLUSTRATION 1

Richfield District

	Resource Products or Uses [a]					
Item	Livestock Feed (AUM's)RangeForage		Merchantable Wood Products (mbf)		Outdoor Recreation (Visitor days)	
Present Situation:	Total	BLM	Total	BLM	Total	BLM
Production	Not estimated					
Consumption	302,250	85,200	----	108.5	389,000	56,000
Needed Increase	----	----	----	----	----	----
Benchmark Projection to 1980: [b]						
Production						
Consumption	401,993	113,316	----	108.5	778,000	112,000
Needed Increase	99,473	28,116	----	217.	389,000	56,000

	Minerals		Water		Other Land Uses
Present Situation: (5 yr. avg.)					
Production	2,480,000	248,000	1,160,000 Ac.Ft.*		
Consumption	Same	Same	1,160,000 Ac.Ft.*		
Needed Increase	----	----	----	----	
Benchmark Projection to 1980:					
Production	3,000,000	309,000	Not available		
Consumption	Same	Same	Not available		
Needed Increase	----	-----			

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* Average annual precipitation on BLM lands.

c/ Consumption of range forage is something less than production but is unknown on other than BLM land. BLM records (statewide) indicate consumption to be about 20% less than production.

ILLUSTRATION 2

	Estimated Value of Product or Use Per Unit				
	Livestock Feed (AUM)	Saw Timber (MBF)	Outdoor Recreation (User Day)	Other Resource Products Granular Material	Big Game Hunting (per day)
Monetary Value to:					
1. BLM a/ b/	.44	10.20	.00	.03	0.00
2. Initial users c/	6.67	30.00	2.50	.08	6.00
3. Local economies d/	13.34	32.50	10.00	.20	15.00
4. State economy	18.79	37.50	15.00	.30	22.50

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a/ Exchange price - not necessarily market value.

b/ Estimated market value.

c/ Local income multipliers for resource products should be used. These multipliers will vary from one area to another.

d/ No national income multipliers are used in this example. These may be required when significant quantities of a commodity are imported or exported at a national level.

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ILLUSTRATION 3

Type and Recipient	Estimated Value of Product or Use (Dollars)				
	Livestock Feed	Saw Timber	Outdoor Recreation	Minerals	Total
Monetary value to:					
1. BLM					
2. Initial users	568,284.	2,034.	1,211,000.	2,480,000.	4,261,318.
3. Local community	1,136,568.	4,068.	2,422,000.	4,960,000.	8,522,636.

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ILLUSTRATION 4

Dependent Interest Groups	Estimated Dependence (Percent of Income)			
	Livestock Feed	Saw Timber	Outdoor Recreation	Minerals
Industries	5-10	0	15-20	50-60
Local community	15-20	0	15-20	5-10

ILLUSTRATION 5

User Influence Zone [a]	Resource Products or Uses Livestock Feed	Merchantable Wood Products	Outdoor Recreation
Local	1	1	2
District	1	2	2
State	2	2	1
Region	3	0	3
Nation	3	0	3

	Minerals	Water	Other Land Uses
Local	1	1	
District	3	2	
State	2	3	
Region	3	0	
Nation	3	0	

[a] Rate using the following code: Primary importance - 1; Secondary importance - 2; Limited importance - 3; Not significant - 0.

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II. Introduction and Background

Introduction

The District Economic Supplement provides an analytical framework for determining, at a District level, the capability of BLM resources within the District to help meet present and projected needs and thus promote general Bureau objectives.

The economic, graphic and resource data are assembled on a county basis for the Statistical Regions which comprise all counties located entirely or in significant part within District Boundaries. The Richfield Statistical Region consists of Sevier, Piute and Wayne Counties.[1] (See the State Office District Statistical Region Map.) Due to limitations it is necessary that Statistical Regions follow county boundaries as it is usually not practical to divide a county into two or more statistical regions.

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[1] For purposes of this Summary, certain production considerations of Garfield County are also included.

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III. District Economy

A. Population

The Richfield Statistical Region (DSR) embraces 6.2% of the land area of Utah but contains only 1.5% of the population. (Table 14) The DSR population has steadily declined since 1900 (Table 1). The percent change - 1950 to 1960 - was 15.2% as compared with a -5.3% change for the 1960-68 period. Population trends show declines of 18.4 and 14.5 percent for the period 1950-60 for Fillmore and Price DSRs respectively and a -2.7 and -18.7 percent change for the period 1960-68. During the same periods the percent change for the State of Utah was a +29.3 and +17.4 (table 2). Projections for the period 1970 to 2000 show a percent change of +43 for the Richfield DSR as compared to a +46 for the State of Utah (table 3). Other pertinent population data relating to percentage of population by broad age groups, population by sex, secondary and elementary school enrollment, components of population change - natural increase and migration and population of communities are shown on tables 4 through 8 respectively.

A report of the Sevier County School District (Deseret News March 7, 1970) shows that every secondary and elementary school in the District will decline in number of students during the next five years, based on projected enrollment figures. The report shows the enrollment will decline from 3,056 (1970) to 2,468 (projected 1975), a decrease of 16%.

B. Income

1. Percapita Personal Income

The average per capita personal income for the Richfield DSR for 1960 and 1965 was $1,272. and $1,381. respectively, compared with $1,936. and $2,335. respectively for the State of Utah. Percentage-wise the Richfield DSR per capita income was only 65.7% and 59.1% of the State average for the same years. These percentages are lower than any of the surrounding DSR averages. Comparative percentages are as follows: Fillmore DSR, 73.1% - 69.0%; Price DSR, 89.9% - 71.9%; Kanab DSR, 69.1% - 63.0% respectively. (Table 9) Median family incomes for the Richfield DSR was $4,116. in 1959 as compared to $5,899. for the State of Utah. 19.0% of the families had incomes of less than

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TABLE 1

POPULATION OF COUNTIES 1900 - 1960 CENSUS YEAR 1961 - 1966 ANNUALLY

	Piute		Sevier		Wayne		State	
Year	Pop.	%Change From Last Census	Pop.	% Change From Last Census	Pop.	% Change From Last Census	Total Pop.	% Change From Last Census
1900	1,954	-31.2	8,451	36.3	1,907	-	276,749	
1910	1,734	-11.3	9,775	15.7	1,749	-8.3	373,351	35
1920	2,770	59.7	11,281	15.4	2,097	19.9	449,396	20
1930	1,956	-29.4	11,199	- .7	2,067	- 1.4	507,847	8
1940	2,203	12.6	12,112	8.2	2,394	15.8	550,310	8
1950	1,911	-13.3	12,072	- .4	2,205	- 7.9	688,862	25
1960	1,436	-24.9	10,556	-12.5	1,728	-21.6	890,627	29
* 1961	1,500	4.5	11,600	9.8	1,700	-1.6	915,000[a]	2.6
* 1962	1,500	4.5	10,500	- 0.6	1,700	-1.6	942,000[a]	2.9
* 1963	1,400	- 2.5	10,200	- 3.5	1,700	-1.6	972,000[a]	3.1
* 1964	1,400	- 2.5	10,200	- 3.5	1,700	-1.6	988,000[a]	1.6
* 1965	1,400	- 2.5	10,000	- 5.3	1,600	-7.4	1,003,000[a]	1.5
**1966	1,300	- 9.5	9,800	7.2	1,600	-7.4	1,015,000[a]	1.1

* Figures and computations based on January 1

** Figures and computation based on July 1

[a] Estimate prepared by Utah Population Work Committee

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TABLE 2

POPULATION BY COUNTY AND DISTRICT STATISTICAL REGION

DSR - County	1950	1960	1968	Percent Change	
				1950-60	1960-68
Richfield					
Sevier	12,072	10,565	10,000	- 12.5	- 5.3
Piute	1,911	1,436	1,400	- 24.9	- 2.5
Wayne	2,205	1,728	1,600	- 21.6	- 7.4
DSR Totals	16,188	13,729	13,000	-15.2	- 5.3
Fillmore					
Juab	5,981	4,597	4,500	- 23.1	- 2.1
Millard	9,387	7,866	7,500	- 16.2	- 4.7
Beaver	4,856	4,331	4,100	- 10.8	- 5.3
Sanpete	13,891	11,053	11,000	- 20.4	- 0.5
DSR Totals	34,115	27,847	27,100	- 18.4	- 2.7
Price					
Carbon	24,901	21,135	16,400	- 15.1	- 22.4
Emery	6,304	5,546	5,300	- 12.0	- 4.4
DSR Totals	31,205	26,681	21,700	- 14.5	- 18.7
Kanab					
Garfield	4,151	3,577	3,100	- 13.8	- 13.3
Kane	2,299	2,667	2,500	16.6	- 6.3
DSR Totals	6,450	6,244	5,600	- 3.2	- 10.3
State	688,862	890,627	1,045,000	29.3	17.4

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TABLE 3

CURRENT AND PROJECTED POPULATIONS OF COUNTIES: 1960-1980 [1/]

Counties	1960 Population	Projection Dates 1970	1975	1980	2000	% Change 1970 to 2000
Piute	1,436	1,570	1,760	1,980	2,230	42
Sevier	10,565	11,480	12,830	14,570	16,490	43
Wayne	1,728	1,860	2,060	2,320	2,620	40
DSR Total	13,729	14,910	16,650	18,870	21,340	43
State	890,627	1,003,800	1,113,070	1,287,030	1,467,240	46

[1/] Population Projections - Utah State Planning Program. 1967.

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4/27/70

TABLE 4

PERCENTAGE OF POPULATION BY BROAD AGE GROUPS FOR SUBJECT COUNTIES, UTAH AND UNITED STATES

	Piute			Sevier			Wayne			Utah			United States		
Age Group	1940	1950	1960	1940	1950	1960	1940	1950	1960	1940	1950	1960	1940	1950	1960
Under 5	13.9	13.0	11.2	11.4	14.1	11.7	15.5	15.6	11.6	10.7	13.5	14.2	8.0	10.7	11.3
5-14	21.6	27.2	24.2	23.7	22.1	25.1	25.9	27.2	26.7	20.8	19.9	23.3	17.0	16.2	19.8
15-24	21.1	12.7	15.2	20.4	15.5	12.5	20.1	14.9	13.5	19.9	16.4	15.4	18.2	14.6	13.4
25-34	15.5	12.8	8.8	13.6	13.6	10.1	13.7	14.0	8.7	15.1	15.3	12.7	16.2	15.7	12.8
35-44	9.8	13.9	10.8	10.9	12.1	11.2	10.2	11.0	12.5	11.8	12.5	11.7	13.9	14.3	13.5
45-54	8.0	8.7	12.3	8.8	9.1	11.0	7.7	7.9	11.6	9.6	9.3	9.3	11.8	11.5	11.5
55-64	6.2	6.8	9.1	6.0	7.0	8.8	3.7	5.6	7.9	6.7	6.9	6.6	8.0	8.8	8.8
65-74	2.6	3.9	4.9	3.6	4.8	6.4	2.6	2.6	5.3	3.8	4.2	4.4	4.9	5.6	6.1
75 and over	1.3	1.6	3.2	1.6	1.8	3.3	.6	1.3	2.3	1.7	1.9	2.3	2.0	2.6	3.0

April 28, 1970

TABLE 5

POPULATIONS BY SEX

County	1940			1950			1960		
	Males	Females	Males per 100 Females	Males	Females	Males per 100 Females	Males	Females	Males per 100 Females
Piute	1,154	1,049	110	966	945	102.2	723	713	101.4
Sevier	6,227	5,885	105.8	6,096	5,976	102.0	5,207	5,358	97.2
Wayne	1,268	1,126	112.6	1,145	1,060	108.0	876	852	102.8
DSR TOTALS	8,649	8,060	328.4	8,307	7,981	312.2	6,806	6,923	301.4
Utah	278,620	271,690	102.6	347,636	341,226	101.9	444,924	445,703	99.8
U.S. (1000s)	66,062	65,608	100.7	74,200	76,016	97.6	87,837	90,630	96.9

U of U Economic Profile for subject counties.

April 28, 1970

TABLE 6

SECONDARY AND ELEMENTARY ENROLLMENT AND HIGH SCHOOL GRADUATES IN UTAH BY DISTRICTS (COUNTIES)

1962 – 1966

County or District	1962 – 1963				1963 – 1964			
	Elem.	Secondary	Total All Grades	Total High School Grad.	Elem.	Secondary	Total All Grades	Total High School Grad.
Piute	209	250	459	27	200	262	462	27
Sevier	1,797	1,431	3,228	173	1,746	1,455	3,201	185
Wayne	320	263	583	36	291	284	575	47
DSR TOTALS	2,326	1,944	4,270	236	2,237	2,001	4,238	259

	1964 – 1965				1965 – 1966			
Piute	193	276	469	38	185	259	444	39
Sevier	1,705	1,470	3,175	221	1,621	1,471	3,092	210
Wayne	251	276	527	39	269	265	534	39
DSR TOTALS	2,149	2,022	4,171	298	2,075	1,995	4,070	288

Source of Data: "An Economic Profile" 1967 – University of Utah

TABLE 7

April 28, 1970

COMPONENTS OF POPULATION CHANGE: NATURAL INCREASE AND MIGRATION 1960-66

County	Population				Natural Increase 1960-66				Migration 1960-66	
			Change				Change		Net	Percent of
	1960	1966	Amount	%	Births	Deaths	Amount	%	Amount	1960 Population
Piute	1436	1300	-100	-8.3	200	100	100	-7.0	-200	-14.0
Sevier*	10,565	9,700	-800	-7.9	1,100	600	500	-4.7	-1,400	-13.3
Wayne	1,728	1,600	-200	-9.3	200	100	100	-5.8	- 300	-17.4

Source of Data: Six CountyEconomic Development District - Utah Initial Report 1969.

*Net migration out 100, unable to reconcile from source below.
Source: U.S. Bureau of the Census, county and city data book, 1967 and current population reports, Series P-25, No. 404, 9/27/68.

TABLE 8

April 28, 1970

POPULATION OF ALL INCORPORATED PLACES AND UNINCORPORATED PLACES - 1940-1960

Place	County	1940	1950	1960	% Change 1940 - 1960
Aurora	Sevier	607	614	465	-23
Bicknell	Wayne	362	373	366	+01
Circleville	Piute	683	603	478	-30
Elsinore	Sevier	674	657	483	-28
Glenwood	Sevier	385	338	277	-28
Joseph	Sevier	297	208	117	-60
Kingston	Piute	63	138	143	+127
Koosharem	Sevier	375	300	148	-60
Loa	Wayne	396	437	359	-09
Marysvale	Piute	626	520	354	-43
Monroe	Sevier	1,292	1,214	955	-26
Richfield	Sevier	3,584	4,212	4,412	+23
Salina	Sevier	1,616	1,789	1,618	+0.1
Sigurd	Sevier	364	431	339	-06
Torrey	Wayne	231	241	128	-44

Source: Department of Comm. Bureau of Census, U. S. Census of Population, 1940-1960 - Utah: Number of Inhabitants, Table 8.

TABLE 9 April 28, 1970

PER CAPITA PERSONAL INCOME BY COUNTY AND DISTRICT STATISTICAL AREA

	Income ($)		% of Utah Average	
Dist. Stat. Region	1960	1965	1960	1965
Richfield				
Piute	1,148	1,031	59.3	44.2
Sevier	1,415	1,528	73.1	65.4
Wayne	1,252	1,585	64.7	66.7
DSR (AVE.)	1,272	1,381	65.7	59.1
Fillmore				
Juab	1,410	1,693	72.8	72.5
Millard	1,548	1,553	80.0	66.6
Sanpete	1,077	1,179	55.6	50.5
Beaver	1,629	2,025	84.1	86.7
DSR (AVE)	1,416	1,612	73.1	69.0
Price				
Carbon	1,711	1,866	88.4	79.9
Emery	1,774	1,497	91.6	64.1
DSR (AVE.)	1,742	1,681	89.9	71.9
Kanab				
Kane	1,464	1,346	75.6	57.6
Garfield	1,212	1,598	62.6	68.4
DSR (AVE.)	1,338	1,472	69.1	63.0
STATE TOTAL	1,936	2,335	100	100

Source: State BLM Economic Profile. Taken from Utah State Preliminary Development Plan.

TABLE 14

COUNTY - LAND AREA AND POPULATIONS (1940 - 1950 - 1960)

County	Land Area (Sq.Mi.)	Population			% Increase or Decrease	Population per Sq.Mi. of Land Area
		1940	1950	1960	1950-60	1960
Piute	753	2,203	1,911	1,436	- 25.0	1.9
Sevier	1,932	12,112	12,072	10,565	- 13.0	5.5
Wayne	2,489	2,394	2,205	1,728	- 22.0	0.7
DSR Total	5,174	16,709	16,188	13,729	- 14.0	3.7
State	82,339	550,310	688,862	890,627	29.0	10.8
% of State						
DSR	6.2	3.0	2.3	1.5		

Source: Ward J. Roylance - Materials for the Study of Utah's Counties. Revised 1964, Page 9

$2,000., 41.7% $2,000. to $4,999. and 39.3 $5,000. or more. This compares to 8.3%, 27.8% and 64.0% respectively for the State of Utah (Table 10). Total personal income in the Richfield DSR increased from $19,147,000. in 1959 to $25,825,000. in 1969. This was a 34.8% increase. This compared to a 72.14% increase for the State of Utah and increases of 34.57%, 2.36%, 50.70% and 13.49% for the adjacent counties of Garfield, Emery, Sanpete and Kane respectively (Table 11). *

2. Personal Income - by Source

Salary and wages exceeded all other sources of personal income in the Richfield DSR in 1965 (tables 12a, 12b and 12c). Proprietorship, including farming, was next high in Piute and Wayne Counties but was lowest in Sevier County, being exceeded by property and transfer payments (Tables 12a, 12b and 12c).

Government topped all sources of wage and salary receipts in the DSR. The high being 82.7% in Wayne County. Piute and Sevier Counties followed with 54.7% and 30.9% respectively. The second high source of wage and salary receipts was manufacturing in Sevier County (21.5%) while mining rated second in Piute County (19.3%) and farms rated second in Wayne County (5.1%).

3. Effective Buying Income

Effective buying income is the dollars people have available for spending. It is closely related to disposable personal income. To arrive at this figure, total individual incomes from all sources are calculated. From this figure is subtracted all federal, state and local taxes. The end result is effective buying income.

All counties in the Richfield DSR are below the State average in effective buying income on a per capita and per household basis. Piute County is the lowest, being only 61.4% of the State average on a per capita income comparison. Wayne County is next with 77.0%. Sevier County is highest in the DSR with 82.5%. Per household income follows the same pattern. Piute County is 62.5% of the State average, followed by Wayne with 67.0% and Sevier with 78.9%, (table 13).

* For the year 1965 the per capita personal income for Piute County was the lowest of the 29 counties in the State, being only $1,031. which was 44.2% of the State average. Sevier County was 23rd with $1,528. (65.4%) and Wayne County was 22nd with $1,585. (66.7%).

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TABLE 10

NUMBER OF FAMILIES, MEDIAN FAMILY INCOME AND PERCENTAGE DISTRIBUTION OF FAMILY INCOME SUBJECT COUNTIES AND UTAH 1959

	Number of Families	Median Family Income	Percent Having Income Less than $2000.	 $2,000. to $4,999.	 $5,000. or More
Piute	363	$4,125.	17.1	45.4	37.5
Sevier	2,671	4,502.	14.6	44.9	40.5
Wayne	415	3,721.	25.2	34.7	39.8
DSR Total	3,449	4,116.	19.0	41.7	39.3
State of Utah	209,373	$5,899.	8.3	27.8	64.0

Source of Data - An Economic Profile (for each respective County) - Center of Economic and Community Development - University of Utah, 1967.

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TABLE 11

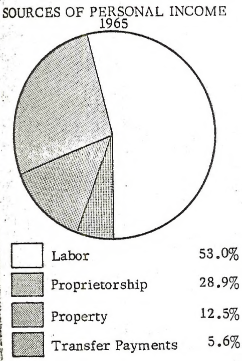
PERSONAL INCOME ($1,000.) AND % CHANGE DSR AND ADJOINING COUNTIES 1959-1969

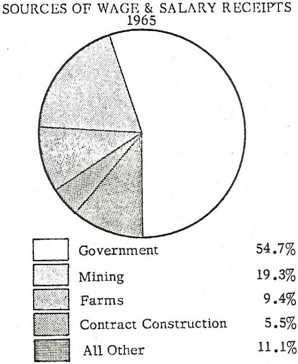
County	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	Total Gain 1959-1968
Piute	1,800	1,700	1,756	1,388	1,379	1,486	1,460	1,580	1,603	1,776	1,725	
% Change		- .55	3.30	-20.96	- .65	7.75	- 1.75	8.20	1.47	10.79		3.89
Sevier	15,084	15,355	15,826	14,255	14,115	14,195	15,402	16,449	18,278	20,190	21,201	
% Change		1.79	3.07	- 9.92	- .98	.57	8.50	6.80	11.12	10.46		33.85
Wayne	2,263	2,231	2,539	2,176	2,220	1,930	2,567	2,685	2,680	2,665	2,899	
% Change		- 1.38	13.78	-14.31	2.02	-13.07	33.03	4.61	- .21	- .54		17.78
DSR	19,147	19,286	20,121	17,819	17,714	17,611	19,429	20,714	22,561	24,631	25,825	
% Change		0	- .04	-11.0	0	0	10.0	6.6	8.9	9.1	4.8	34.8
Garfield	4,726	4,853	5,021	4,248	4,547	4,458	4,851	5,515	6,654	6,360	6,624	
% Change		2.67	3.46	-15.40	7.05	- 1.95	8.82	13.67	20.66	- 4.42		34.57
Emery	9,486	10,112	10,003	7,832	9,137	8,251	8,902	7,350	8,117	9,710	10,333	
% Change		6.60	- 1.08	-21.70	16.66	- 9.70	7.89	17.43	10.43	19.63		2.36
Sanpete	11,749	12,220	12,924	12,660	12,046	11,467	13,188	14,793	16,562	17,706	18,777	
% Change		4.01	5.76	- 2.04	- 4.84	- 4.81	15.01	12.17	11.95	6.91		50.70
Kane	3,536	4,002	4,467	4,144	3,685	3,105	3,533	3,232	3,812	4,013	4,372	
% Change		13.18	11.61	- 7.23	11.08	-15.74	13.76	- 8.50	17.94	5.28		13.49
State Totals ($1,000,000)	1,676	1,771	1,909	2,072	2,155	2,218	2,355	2,516	2,669	2,885	3,070	
% Change		5.67	7.79	8.54	4.01	2.92	6.18	6.83	6.12	8.09		72.14

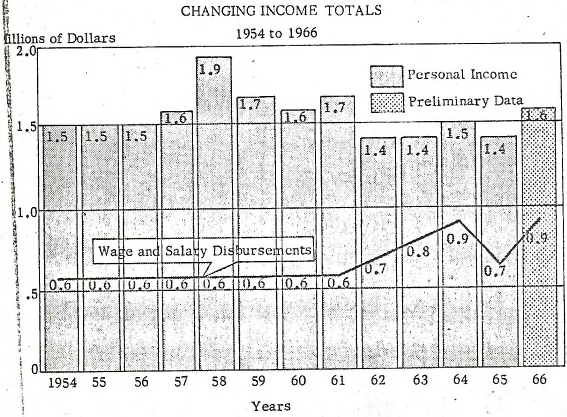
Data Source - Utah Economic & Business Review - February 1970

TABLE 12 A

INCOME DATA FOR PIUTE COUNTY


SOURCES OF PERSONAL INCOME
1965


SOURCES OF WAGE & SALARY RECEIPTS
1965

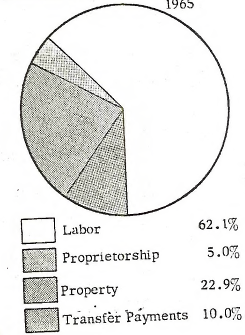

CHANGING INCOME TOTALS

1954 to 1966

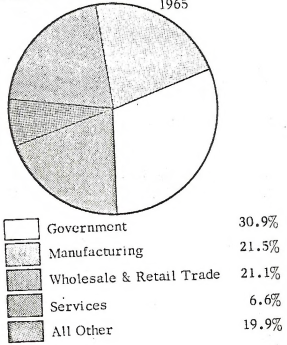
TABLE 12 B

INCOME DATA FOR SEVIER COUNTY

SOURCES OF PERSONAL INCOME 1965



SOURCES OF WAGE & SALARY RECEIPTS 1965



CHANGING INCOME TOTALS

1954 to 1966

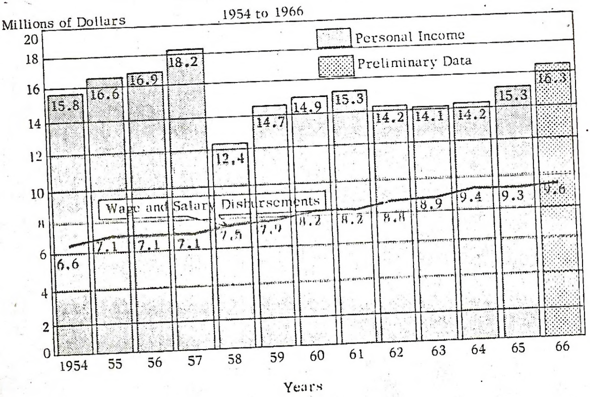
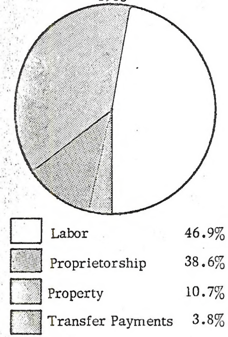
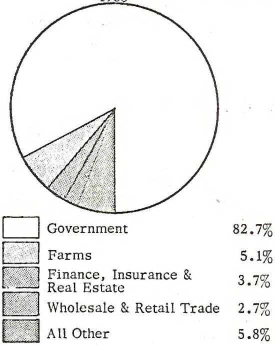


TABLE 12 C
INCOME DATA FOR WAYNE COUNTY

SOURCES OF PERSONAL INCOME
1965



SOURCES OF WAGE & SALARY RECEIPTS
1965



CHANGING INCOME TOTALS

1954 to 1966

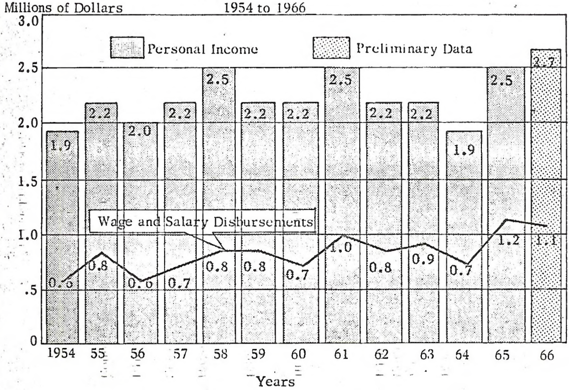


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TABLE 13

EFFECTIVE BUYING INCOME AND CASH INCOME BREAKDOWN OF HOUSEHOLDS. 1966

County	Net Dollars (000)	Per Capita	Per Household	% Households by Cash Income Groups				
				$0-2,999	$3,000 to 4,999	$5,000 to 7,999	$8,000 to 9,999	$10,000 & over
Piute	$ 1,999	$ 1,333	$ 4,998	30.2	28.9	30.6	4.8	5.5
Sevier	17,032	1,793	6,308	24.5	22.3	35.3	8.8	9.1
Wayne	2,677	1,673	5,354	42.4	20.0	23.4	5.2	9.0
DSR Avg.		1,600	5,553	32.4	23.7	29.8	6.3	7.8
Utah	2,213,149	2,171	7,987	18.4	15.8	34.7	13.6	17.7
	Percent of State							
Piute		61.4	62.5					
Sevier		82.5	78.9					
Wayne		77.0	67.0					
DSR		73.6	69.5					

Comparing the different household cash income groups, Wayne County has the largest percent (42.4) in the lowest income group ($0. - $2,999.) followed next by Piute with 30.2% and Sevier with 24.5%. Piute and Sevier Counties show the highest percent - 30.6 and 35.3 respectively in the $5,000. to $7,999. group. This corrolates relatively close to the State of Utah which shows its highest percentage - 34.7 - in this same income group. Generally the Richfield DSR, as compared to the State of Utah, has larger percentages of families in the lower income groups and lower percentages in the higher income groups, (see table 13).

C. Employment

1. Employment by Sectors and Major Industries.

Average monthly employment declined steadily in the Richfield DSR during the period 1950-1965 (Tables 15a, 15b, 15c). Piute County had a decrease of 21.6% during the period. Sevier and Wayne Counties followed with 3.7% and 14.5% respectively. During this same period non-agricultural employment increased 26.0%, 22.5% and 61.6% for Piute, Sevier and Wayne Counties, respectively while agricultural employment decreased sharply by 55.7%, 53.8% and 55% respectively for the subject counties during the same period. Table 16 shows a further decline in agricultural employment - 1958 to 1969. The total DSR decline during this period was 52.5% as compared to 46.9% for the State of Utah.

Continued declines in agricultural employment in the Richfield DSR is expected due to mechanization and larger acreages per farm unit. In spite of this decline, agriculture, forestry and fisheries were the major industries of employment (1960) for the DSR. (26.2%). Individual county percentages are as follows: Piute 42.0%, Sevier 22.1% and Wayne 39.4%. Wholesale and retail trade was second (19.1%) and manufacturing rated third (11.8%). (Tables 17, 17a)

2. Unemployment Rates

Average county unemployment rates as compared to the State have been somewhat unstable. In 1950 Piute County had an unemployment rate of 1.5% as compared to 5.3% for the State. By 1965 these rates changed to 6.8 and 5.7 percent respectively. The rates for Sevier and Wayne Counties were not so erratic as compared to State averages. The 1950 rates were

TABLE 15 a

AVERAGE AGRICULTURAL AND NON-AGRICULTURAL MONTHLY EMPLOYMENT IN PIUTE COUNTY: 1950 to 1965

Year	Average Monthly Work Force	Average Monthly Employment[a]	Average County Unemployment Rate	Average State Unemployment Rate	Average Non-Agricultural Employment	Average Agricultural Employment
1950	530	523	1.5	5.3	208	316
1951	527	520	1.1	3.2	218	303
1952	519	505	2.5	3.0	214	290
1953	524	515	1.7	3.1	231	284
1954	541	523	3.3	4.9	255	268
1955	549	539	1.6	3.9	266	274
1956	533	518	2.4	3.3	256	262
1957	519	497	4.2	3.5	246	250
1958	500	470	6.0	5.0	223	250
1959	490	470	4.5	4.3	231	240
1960	490	470	5.5	4.5	235	230
1961	470	440	6.0	5.1	229	210
1962	490	470	4.1	4.6	249	220
1963	480	460	4.2	5.1	255	200
1964	500	470	6.1	5.7	395	170
1965	440	410	6.8	5.7	262	140

[a] Average non agricultural employment and average agricultural employment may not add up to average monthly employment because of rounding.

TABLE 15 b

AVERAGE AGRICULTURAL AND NON-AGRICULTURAL MONTHLY EMPLOYMENT IN SEVIER COUNTY: 1950 to 1965

Year	Average Monthly Work Force	Average Monthly Employment[a]	Average County Unemployment Rate	Average State Unemployment Rate	Average Non-Agricultural Employment	Average Agricultural Employment
1950	3,940	3,790	3.8	5.3	2,487	1,300
1951	3,910	3,790	3.1	3.2	2,536	1,250
1952	3,880	3,730	3.9	3.0	2,527	1,200
1953	4,020	3,850	4.2	3.1	2,683	1,170
1954	4,050	3,810	5.9	4.9	2,701	1,110
1955	4,110	3,920	4.6	3.9	2,786	1,130
1956	4,070	3,860	4.2	3.3	2,779	1,080
1957	4,000	3,850	3.8	3.5	2,817	1,030
1958	4,030	3,800	5.7	5.0	2,780	1,020
1959	4,130	3,930	4.8	4.3	2,946	980
1960	4,210	4,000	5.0	4.5	3,053	950
1961	4,130	3,880	6.1	5.1	2,983	900
1962	4,100	3,920	4.4	4.6	2,999	920
1963	4,040	3,840	5.0	5.1	2,991	850
1964	3,950	3,720	5.8	5.7	3,015	710
1965	3,840	3,650	5.2	5.7	3,047	600

[a] Average non-agricultural employment and average agricultural employment may not add up to average monthly employment because of rounding.

TABLE 15c

AVERAGE AGRICULTURAL AND NON-AGRICULTURAL MONTHLY EMPLOYMENT IN WAYNE COUNTY:

1950 to 1965

Year	Average Monthly Work Force	Average Monthly Employment[a]	Average County Unemployment Rate	Average State Unemployment Rate	Average Non-Agricultural Employment	Average Agricultural Employment
1950	630	620	1.6	5.3	216	400
1951	620	610	1.6	3.2	227	380
1952	590	580	1.7	3.0	213	370
1953	580	570	1.7	3.1	210	360
1954	600	590	1.7	4.9	248	340
1955	730	720	1.4	3.9	373	350
1956	630	610	3.2	3.3	277	330
1957	620	600	3.2	3.5	279	320
1958	620	600	3.2	5.0	287	310
1959	630	610	3.2	4.3	294	320
1960	600	590	1.7	4.5	296	290
1961	660	640	3.0	5.1	361	280
1962	660	640	3.0	4.6	357	280
1963	640	620	3.1	5.1	359	260
1964	520	490	5.8	5.7	277	210
1965	540	530	2.8	5.7	349	180

[a] Average non-agricultural employment and average agricultural employment may not add up to average monthly employment because of rounding.

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TABLE 16

ESTIMATED AGRICULTURE EMPLOYMENT BY COUNTIES - 1958 - 1969

County	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1958-69 % Change
Piute	247	236	231	195	223	200	170	150	130	120	120	116	53.0
Sevier	1,020	976	951	897	925	850	710	650	560	540	520	492	51.7
Wayne	313	300	292	277	285	260	210	180	160	160	150	141	54.9
DSR Total	1,580	1,512	1,474	1,369	1,433	1,310	1,090	980	850	820	790	749	52.5
State Total	23,200	22,400	21,800	20,600	21,100	19,300	18,400	16,200	14,200	13,900	13,100	12,300	46.9

TABLE 17

MAJOR INDUSTRY OF EMPLOYMENT AS REPORTED BY WORKERS BY COUNTY OF RESIDENCE, 1960

	Number of Employed Workers							
					Manufacturing			
	Total	Agriculture Forestry & Fisheries	Mining	Construction	Total	Durable Goods	Non-durable Goods	Transport., Com., and Pub.Util.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Piute	478	201	54	20	8	4	4	12
Sevier	3,562	788	64	248	511	324	187	227
Wayne	480	189	31	32	14	11	3	24
DSR Total	4,520	1,178	149	300	533	339	194	263
% of Total*		26.2	3.3	6.6	11.8	7.5	4.3	5.8

(Continued - See 17a)

* Total of Percentages does not equal 100 due to rounding.

TABLE 17a

MAJOR INDUSTRY OF EMPLOYMENT AS REPORTED BY WORKERS BY COUNTY OF RESIDENCE, 1960 (Continued)

	Number of Employed Workers							
	Whole. & Retail Trade (9)	Finance, Ins. & Real Est. (10)	Business & Repair Service (11)	Personal Services (12)	Entertainment and Recreation (13)	Prof. Services (14)	Government (15)	Industry not Reported (16)
Piute	65	0	4	17	0	50	41	6
Sevier	748	94	76	247	25	311	172	51
Wayne	52	3	7	4	0	53	71	0
DSR Total	865	97	87	268	25	414	284	57
Percent of Total*	19.1	2.2	1.9	5.9	.5	9.2	6.3	1.3

Source: Six County Economic Development Report - August 1969

* Total of percentages will not equal 100 due to rounding.

3.8 and 5.3 and 1.6 and 5.3 respectively as compared to the 1965 rates of 5.2 and 5.7 and 2.8 and 5.7 respectively, (Tables 15a, 15b, and 15c).

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IV. Contribution of BLM Resources.

A. Livestock

The livestock industry has the greatest economic influence in the agricultural sector of the region. Livestock products account for 88.3% (1964) of the total value of farm products sold. (table 18). Crops and miscellaneous livestock account for the remaining 11.7%. The DSR Counties are near equal in their livestock contribution to the region - Piute 86.1%, Sevier 88.8% and Wayne 86.3%,(Table 18).

Cattle sales exceed all other livestock and crop products on a region and state basis, (Table 19). Cattle sales contributed 38%, 46% and 44% of the five leading agricultural products sold in 1964 for Piute, Sevier and Wayne Counties respectively. This compared favorably to the State - 32%. The second product in importance for each county is:milk 34% - Piute, sheep 18% - Sevier and sheep 25% - Wayne. The second most important product for the State was milk with 17%, (Table 19).

B. Livestock Dependency on BLM Forage.

Present Situation

Livestock dependency on BLM forage is difficult to determine with accuracy. Carrying capacities, supply of forage and needs can be determined but effects of future changes in use of public lands are nebulous and therefore projections based on current statistical data may or may not be realized. (The recent enlargement of the Capitol Reef National Monument is an example.)

Other changes, such as management programs, grazing adjudications are having direct and immediate impacts upon the individual livestock operator and the local communities. Normally improved management programs result in increased benefits to individual operators while most adjudication actions are detrimental to individual operators and adversely affect the community.

Further uncertainty is generated because individual operators utilize public lands in varying degrees. Grazing on public lands represents the major source of feed for some while others use it only as a supplement to their private grazing land and feeding of privately produced feeds.

Range livestock feed consumption from BLM lands in the Richfield District (Table 26) amounts to 85,200 AUM's. This is 28% of the

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TABLE 18

VALUE OF FARM PRODUCTS SOLD 1964 and 1959

	1964						1959					
			Crops		Livestock				Crops		Livestock	
	Total ($1000)	Av.per Farm $	Value ($1000)	% of Total	Value ($1000)	% of Total	Total ($1000)	Av.per Farm $	Value ($1000)	% of Total	Value ($1000)	% of Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DSR Total	10,294	1,524	1,199	11.7	9,081	88.3	11,326	1,198	1,366	12.0	8,251	72.8
Counties												
Piute	1,254	1,830	171	13.6	1,080	86.1	1,163	1,048	182	15.6	756	65.0
Sevier	7,648	1,782	841	10.9	6,799	88.8	8,630	1,689	982	11.3	6,328	73.3
Wayne	1,392	960	187	13.4	1,202	86.3	1,533	856	202	13.1	1,167	76.1

Source: Overall Economic Development Program Initial Report - August 1969.

Six County Economic Development District from U.S. Census of Agriculture. 1964-1959.

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TABLE 19

TABULATION OF FIVE LEADING PRODUCTS BY COUNTY 1964

(Livestock and Livestock Products Dominate Sales of Crops in Every Utah County.)

County	First Product	%	Second Product	%	Third Product	%	Fourth Product	%	Fifth Product	%	% of Total	Total Value of Products Sold
Piute	Cattle	38	Milk	34	Hay	8	Sheep	5	Poultry	5	90	1,239,429
Sevier	Cattle	46	Sheep	18	Milk	13	Poultry	11	Beets	4	92	7,461,427
Wayne	Cattle	44	Sheep	25	Milk	10	Potatoes	7	Wool	6	92	1,342,620
State Totals	Cattle	32	Milk	17	Poultry	12	Sheep	9	Hay	4	75	158,144,903

The data is based on 1964 values as reported in the U.S. Census of Agriculture.

Source: A Statistical Review of Utah Agriculture - Revised 1924-1965 - Utah Agriculture Experiment Station.

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TABLE 26

LIVESTOCK FEED (RANGE FORAGE) CONSUMPTION 1/ (AUMs)

County	All Rangeland	BLM	Percent BLM
Piute	40,000	10,000	25
Sevier	110,000	17,000	16
Wayne *	152,250	58,200	38
District Total	302,250	85,200	28
State	3,770,000	1,238,000	33

Source of Information - State Economic Profile - Utah

1/ Forage available for livestock on a sustained yield basis.

* Includes only that portion of Wayne County within the Richfield District. Calculated at 60% of total County in addition to that portion of Garfield which is in the Henry Mountain area calculated at 45% of Garfield County.

Note: 1968 Annual Statistical Report for Richfield District shows 85,917 AUMs produced by BLM.

total District consumption. Statewide consumption on BLM lands is 33% of the total.

Calculations in the State Economic Supplement indicate the gross income to the BLM forage users of Utah amounts to $6.67 per AUM. Methodology used in valuing BLM's contribution was taken from Type I River Basin Study procedures. Beginning with AUM's, they are converted to TDN's at the rate of 360/AUM. Utah State University Studies indicate TDN's are converted to pounds of meat at the rate of 14 TDN's per pound of gain in cow-calf operations and 11.6 TDN's per pound in sheep. Pounds of gain are then converted to dollars by average price of various type products. Wool was valued as to the portion attributable to public domain grazing lands based on the grazing period. The final AUM value was calculated at $6.67. Using this $6.67 value per AUM, the converted dollar value of the 85,200 AUM's produced in the District is $568,284.

C. Economic Factors Influencing the Livestock Industry.

During the period 1950 to 1968 a significant increase in number of cattle and calves has taken place in the DSR. In 1950 there were 45,524 cattle and calves in the region. There were 58,200 in 1968, (Table 20). This represents an increase of 27.8%. The State showed a 35.7% increase for the same period. This increase in the DSR has not been totally constant but has fluctuated somewhat during the period. This fluctuation undoubtedly reflects the price of beef and costs of production over the years. Other important factors which influence cattle numbers are the current market prices, projected prices and expected demands. Cow-calf operations and feeding operations are both affected by these influences.

The pattern in sheep numbers have been opposite to that of cattle. In 1954 there were 148,542 sheep in the region. Numbers progressively decreased to 122,200 in 1968 - a decrease of 17.7% for the period, (Table 21). The State decrease showed 23.1% for the same period. High costs of operations, depressed wool prices, synthetic substitutes for wool, reduction in grazing privileges, less favorable lamb prices compared to beef, scarcity of labor all combined to cause the decline in sheep numbers.

The trend is definitely toward larger operations with fewer operators. Table 27 confirms this trend. In 1963 there were 268 regular operators in the DSR with BLM permits for 13,334 cattle and 52,311 sheep. By 1968 there were 248 regular operators with BLM permits for 14,205 cattle and 35,687 sheep. The decrease

LKS:10
4/27/70

TABLE 20

LIVESTOCK NUMBERS - CATTLE AND CALVES, ESTIMATE OF BREEDING HERD

CATTLE AND CALVES ON FARMS (UTAH)

County	April 1950	Nov.1954	Nov. 1959	Nov. 1964	Jan. 1968 1/	Breeding Beef 1964 2/
Piute	8,172	9,251	10,375	10,053	10,200	4,100
Sevier	24,975	39,866	32,026	33,744	33,500	11,200
Wayne	12,377	14,742	12,841	14,208	14,500	4,000
DSR Total	45,524	63,859	55,242	58,005	58,200	19,300
State	561,566	727,587	697,709	749,738	762,000	352,000

1/ USDA estimates disaggregated to County. Statewide cattle numbers up 1.6% 1964-68.

2/ Includes range cows, bulls and heifers held for breeding purposes - 1964 Census for Agriculture

Source: State Economic Profile - Utah 1970

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TABLE 21

LIVESTOCK NUMBERS - SHEEP AND LAMBS - ESTIMATE OF BREEDING HERD

SHEEP AND LAMBS ON FARMS

County	Apr.1950	Nov.1954	Nov.1959	Nov.1964	Jan.1968 1/	Breeding Sheep 1964 2/
Piute	10,166	15,810	10,233	7,438	7,100	6,600
Sevier	26,770	102,599	95,191	92,341	89,500	29,600
Wayne	16,755	30,133	27,096	26,386	25,600	13,000
DSR Total	53,691	148,542	132,520	126,165	122,200	49,200
State	1,101,324	1,396,981	1,290,950	1,106,798	1,074,000	880,500

1/ USDA data disaggregated to County - Statewide sheep numbers down to 2.9% 1964-68

2/ Includes stock sheep, ewes, rams and yearling ewe lambs. Agriculture Census data.

Source of Information: State Economic Profile, BLM 1970.

TABLE 22

NUMBER OF OPERATORS - PERMITTED LIVESTOCK AND AUMS

1963 - 1968

Year	Regular Operators (Number)	Authorized Active Use		
		Cattle	Sheep	AUMs
1963	268	13,334	52,311	99,419
1964	265	13,582	44,904	74,514
1965	268	21,851	61,096	98,715
1966	259	16,544	43,273	98,593
1967	249	13,398	36,789	88,661
1968	248	14,205	35,687	84,047

Source: Richfield District Annual Grazing Statistical Reports.

in operators amounts to 7.5% while BLM permitted cattle numbers increased 31.0% and BLM permitted sheep numbers decreased 6.1% during this 5 year period. Concurrent with the trend toward fewer operators with larger numbers of livestock - the same pattern is evident as to size of farms, (Tables 23, 24 and 25). In this region the average acres per farm has increased from 86 in 1880 to 506 in 1964 - an increase in size of 418%. This compares with the State increase for the same period of 286%. During the period 1954 to 1964 the number of farms in the region decreased 45.5%. Since 1880, farms of 1000 acres and over on a state basis have increased in number from 9 to 1647, an increase from .1 of 1% to 7.2% for the period, (Tables 24 and 25). High costs and scarcity of manpower coupled with high costs of machinery has forced farm operators into management of larger acreages in order to justify expensive labor saving equipment. This expansion in land and machinery has also carried over into the livestock enterprise. More livestock is required to utilize the increased feeds produced and to meet ever increasing operating expenses. In recent years livestock prices have not been commensurate with the continual rise in machinery and other operating costs. Ranchers have felt this unfavorable price-cost situation for the past few years.

D. Resource Areas.

The three resource areas are shown on the District map (Exhibit #1) with the number of livestock operators in each area.

E. Impact of BLM production on the DSR economy.

As calculated previously, the 85,200 AUM's produced in the DSR (Table 26), when converted to a dollar value, the contribution to the region would amount to $568,284. to the local users. Agricultural sector multipliers are estimated to be 2.0 for district economies, 2.78 for the State, (State Input-Output Model, University of Utah) - thus $568,284. income to local users would create a region economic impact of $1,136,568. This represents 4.4% of the entire personal income of the region, (Table 27)* This same economic impact to users on a state basis would amount to $1,576,830.

Of the 302,250 AUM's of range forage produced in the DSR, BLM lands produce 85,200 or 28%. Statewide, the total range forage produced is 3,770,000 AUM's of this amount BLM lands contribute 1,238,000 or 33%, (Table 27).

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* Includes the AUM's produced in Garfield County as Wayne County stockmen use the Garfield County AUM's and thus the values are reflected in the Wayne County economic impact.

TABLE 23

AVERAGE SIZE OF FARM BY COUNTY IN D.S.R.

1880 - 1954

	1880	1890	1900	1910	1920	1925	1930 (Acres)	1935	1940	1945	1950	1954	1959	1964	% Change 1900-1964
Piute	118	126	146	131	143	145	175	131	221	306	350	343	520	543	272
Sevier	53	88	80	116	102	156	117	120	155	269	166	256	359	387	384
Wayne	--	--	108	129	123	126	143	158	179	262	296	230	464	588	444
DSR-Average	86	—	107	128	123	142	145	136	185	279	271	276	448	506	418
State Average	69	126	212	157	197	192	207	203	287	392	449	537	712	817	286

Source: 1969 Statistical Abstract of Utah University of Utah 1969

AGRICULTURE--TABLE 24

FARMS IN UTAH CLASSIFIED BY SIZE OF FARM
1880-1954

Year	Total Farms	Size of Farm						
		Under 10 Acres	10-49 Acres	50-99 Acres	100-259 Acres	260-499 Acres	500-999 Acres	1,000 Acres and Over
1880	9,452	434	5,001	2,056	1,916	(a)	36	9
1890	10,517	637	4,909	2,096	2,734	(a)	101	40
1900	19,387	2,002	7,463	3,741	4,557	1,008	368	248
1910	21,676	2,133	8,091	4,170	5,032	1,309	551	390
1920	25,662	2,211	8,948	5,080	5,857	2,096	852	618
1925	25,992	3,177	9,069	5,143	5,362	1,817	807	617
1930	27,159	4,057	8,828	5,235	5,422	1,794	1,030	793
1935	30,695	5,405	10,449	5,501	5,383	1,871	1,198	888
1940	25,411	3,560	8,464	4,842	4,821	1,609	1,019	1,096
1945	26,322	5,592	7,562	4,413	4,618	1,622	1,075	1,440
1950	24,198	4,340	6,828	4,240	4,559	1,652	1,051	1,528
1954	22,826	4,855	5,645	3,682	4,287	1,611	1,099	1,647

[a] Information not available.

Source: 1880-1910. United States Department of Commerce. Bureau of the Census, *Thirteenth Census of the United States. (1910). Agriculture*, Vol. VII.
1920-1954: United States Department of Commerce. Bureau of the Census. *Census of Agriculture, 1954*, Utah and Nevada, Vol. I, Part 31.

PER CENT OF FARMS IN UTAH BY EACH SIZE GROUP
1880-1954

Year	Total Farms	Size of Farm						
		Under 10 Acres	10-49 Acres	50-99 Acres	100-259 Acres	260-499 Acres	500-999 Acres	1,000 Acres and Over
1880	100.0%	4.6%	52.9%	21.8%	20.2%	(a)	0.4%	0.1%
1890	100.0	6.1	46.7	19.9	26.0	(a)	1.0	0.4
1900	100.0	10.3	38.5	19.3	13.6	5.2%	1.9	1.3
1910	100.0	9.8	37.3	19.2	13.2	6.0	2.5	1.8
1920	100.0	8.6	34.9	19.8	22.8	8.2	3.3	2.4
1925	100.0	12.2	34.9	19.8	20.6	7.0	3.1	2.4
[illegible]30	100.0	14.9	32.5	19.3	20.0	6.6	3.8	2.9
1935	100.0	17.6	34.0	17.9	17.6	6.1	3.9	2.9
1940	100.0	14.0	33.3	19.1	18.9	6.3	4.0	4.3
1945	100.0	21.2	28.7	16.8	17.6	6.2	4.1	5.5
1950	100.0	18.3	28.2	17.5	18.7	6.8	4.3	6.3
1954	100.0	21.3	24.7	16.1	18.8	7.1	4.8	7.2

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[a] Information not availalble.

Source: Calculated from Agriculture Table 2.

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TABLE 27

BLM RANGE FORAGE CONSUMPTION AND VALUE CONTRIBUTION TO THE DSR PERSONAL INCOME

County	BLM Range Forage Consumption AUMs	AUM Value to County @$6.67[*]	% of Region AUM Values	RegionEconomic Impact (2.0Mult.) $	% of TotalRegion PersonalIncome (1969)
Wayne	58,200	388,194.[**]	68	776,388.	(2,899,000) 27.0%
Piute	10,000	66,700.	12	133,400.	(1,725,000) 8.0%
Sevier	17,000	113,390.	20	226,780.	(21,201,000) 1.0%
DSR Total	85,200	568,284.	100	1,136,568.	(25,825,000) 4.4%

[*] Type I River Basin Study Procedures (AUMs Converted to TDNs)

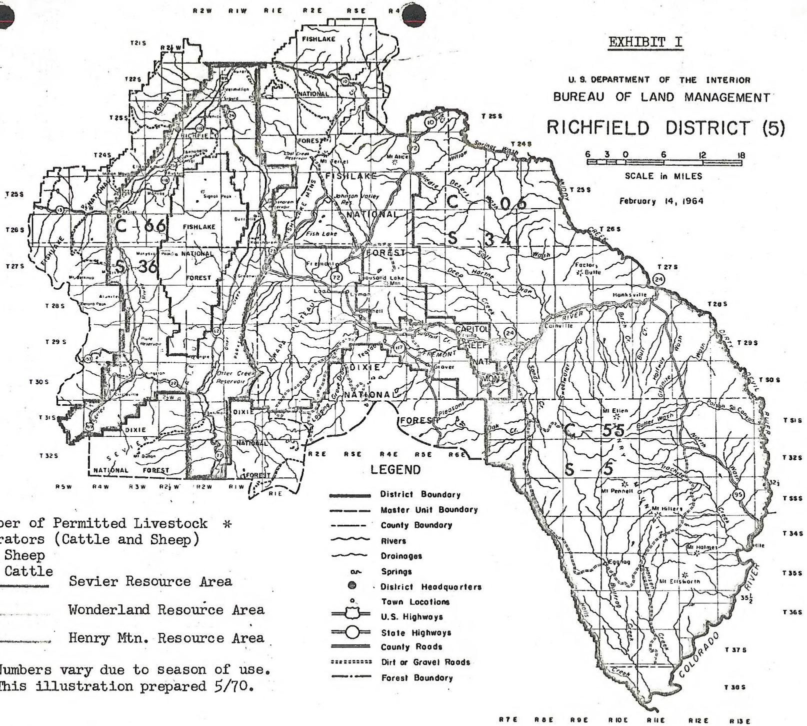
[**] Includes Henry Mtn. Area of Garfield County which is utilized by Wayne County livestock.

EXHIBIT I

U. S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

RICHFIELD DISTRICT (5)



LEGEND

━━━ District Boundary

— — — Master Unit Boundary

– - – County Boundary

∼∼∼ Rivers

∼∼∼ Drainages

Springs

● District Headquarters

○ Town Locations

U.S. Highways

State Highways

═══ County Roads

┅┅┅ Dirt or Gravel Roads

—·— Forest Boundary

Number of Permitted Livestock *
Operators (Cattle and Sheep)
S - Sheep
C - Cattle

━━━ Sevier Resource Area

┈┈┈ Wonderland Resource Area

─── Henry Mtn. Resource Area

* Numbers vary due to season of use.
This illustration prepared 5/70.

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5/70

F. Projections to 1980

Future projections for livestock feed demands are closely associated with the projected demands for beef and lamb meat products. The most reliable projection estimates are provided in the study prepared on the Type I River Basin of the Pacific Southwest Region which is provided by the Economic Research Service and represents region allocations based on historical trends. Data pertaining to river basin subregions in Utah were used to project increase in production from the present to 1980. The studies indicate a need for a 33% increase in beef and lamb products by 1980. To maintain a proportionate increase in BLM forage production (AUM's) the Richfield Region would also have to provide 33% more or 28,116 AUM's (85,200 AUM's to 113,316 AUM's).

This would create an impact on initial users of $187,534 (28,116 AUM's @$6.67) gross income for the forage users in the region at present livestock prices. Using income multipliers previously discussed (2.0 for region and 2.78 for state), the dollar impact to the region from the increase would be $375,068. as compared to an increase impact to the State of $7,584,000. In total, the public domain would contribute to the region by 1980 $755,818. to the initial users annually with an impact of $1,511,636. As compared to the State, the public domain will contribute $10,988,000. annually to the initial users with an impact of $30,547,000. to the State's economy.

The possibility of attaining a 33% increase in BLM forage production by 1980 depends on several variable factors such as suitable sites (soils, rainfall, location, etc.) for seeding and spraying programs, financial appropriations for developing seedings, management systems, etc. An additional 28,116 AUM's are needed to meet the estimated forage demand by 1980. According to District URA preliminary estimates, it is possible to increase forage supplies by 28,585 AUM's through seedings, sprayings and management systems, (Table 29). This increase is based on the assumption that funds would be made available to effect the planned management systems and forage improvement projects.

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TABLE 28

Planning Unit	Operators (Number)	Present Forage Production (AUMs)*	Potential Increase in Forage				
			Chaining, Spraying, Seeding		Management Systems		Increase in AUMs
			Acres	AUMs	Acres	AUMs	
Mountain	64	30,693	12,950	3,625	345,095	5,056	8,681
Little Rockies	23	13,196	1,200	300			300
North Sevier	36	4,152		2,334			2,334
Piute	63	12,115	26,700	3,102	233,503	5,693	8,795
Last Chance	36	16,709	2,250	375	385,807	4,500	4,875
Parker Mtn.	76	13,147	83,200**	2,050**	185,000**	1,550**	3,600
DSR Total		90,012	11,786		16,799		28,585

* As of 4/15/70. Information from Unit Resource Analysis. The basic figure of forage production (85,200) was from District 1969 Annual Report.

** (Estimated - Not from U.R.A.)

G. Merchantable Wood Products.

Merchantable wood products produced in the DSR are of minor importance to the overall economy. In 1969 the combined sales of Christmas trees, firewood and posts amounted to $2,034. [1/] No saw timber is harvested from BLM administered lands in the DSR. There are four active sawmills in the Wayne County area. However, all the sawtimber is harvested from forest lands in the Boulder Mountain area. Salaries and wages of these operations do contribute to the local economy of Wayne County.

In FY 1969 BLM lands in the DSR produced 108.5 MBF of wood products as compared to 523.9 MBF for the State BLM lands. This production amounts to 21.% of the State output. The above figures, along with similar comparisons for fiscal years 1967 and 1968, are compiled in Table 30.

Merchantable wood product demands are expected to maintain a relatively stable use, with some products like posts declining and fuelwood increasing commensurate with population increases.

District inventories indicate there are 9,230 acres of scattered commercial saw timber in the Henry Mountain area. Harvesting of this sawtimber is not planned under present market demands. It is concluded that the timber stands are more valuable for purposes of watershed, scenic and recreation than for timber values. Practically all accessible areas of merchantable timber have been logged off in past years. Present stands of merchantable timber are for the most part inaccessible.

Overall demands for timber consumption is expected to increase by 200% by the year 2000.[2/] BLM production in this DSR is not expected to contribute to this demand.

H. Recreation.

The near 2 million acres of public land in the DSR is open and available to the public for hunting, picnicking, camping, sightseeing, fishing, hiking, rockhounding, picture-taking and other recreational uses. The contribution to recreation is significant. To date considerable expenditures have been made by BLM to construct four recreation developments which provide fourteen family camping units, thirteen family picnic units and twelve trailer units. In addition, many undeveloped recreation sites throughout the DSR are utilized for recreation.

[1/] District Records of Sales. This figure does not corrolate with State Office figures in Table 30.

[2/] State Economic Supplement.

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TABLE 29

BLM WOOD PRODUCT SALES BY COUNTY

County	1969 MBF Volume	1969 Value$	1968 MBF Volume	1968 Value$	1967 MBF Volume	1967 Value$
Piute	3.5	57.	2.3	35.	3.	64.
Sevier	10.6	179.	4.8	48.	9.	82.
Wayne	94.4	398.	80.0	290.	131.	280.
DSR Total	108.5	634.	87.1	373.	143.	426.
State Total	523.9	5343.	505.4	4670.	1071.	8353.
DSR% of State	21.0	11.9	17.0	8.0	13.3	5.0

Source of Information: State Office Economic Profile.

Estimates supplied in the State Economic Profile show that the DSR provides 5% of the total State and Federal public outdoor recreation use (Table 30). This is significant as compared to the State totals as the DSR provides 14.3% of the State public outdoor recreation.

Estimated tourist days spent in the DSR based on expenditures is significant (Table 31). In 1968 it was estimated that 247,500 tourist days were spent in the DSR. This is 1.5% of the State total. Further estimates reveal that the DSR receives $1,211,000. from outdoor recreation and tourism. This is 3.2% of the total State receipts. Sevier ranks 14th in the percent of the State dollar received. Wayne and Piute rank 22nd and 28th respectively. Population of the DSR is 1.0% of the State, (Table 32). These estimates were calculated from tourist expenditures as anindicator of where tourists spend time. The study was developed by the Utah State University. Information used in the study included visitations to National Parks and Monuments, hunter day use by hunting units, use by administrative units of the Forest Service, Fish and Wildlife Service, State Agencies, as well as BLM. The private sector was not considered in the analysis as data is not available.

Hunting is the major outdoor recreation use in the area. Deer hunting is the major sport - attracting hunters from all parts of the State in addition to many groups from California. Pheasant hunting is second in importance. Many other upland game birds are hunted in the area, especially Sage Grouse and Chukars. One of the most highly prized big game species - buffalo - is found in the Henry Mountains. This herd, of approximately 100 mature animals, is purported to be the only buffalo herd in the country managed under natural conditions. Some 10 hunting permits are issued each year through the State Division of Fish and Game. This is done by application and drawing. The Parker Mountain is widely known for excellent antelope and sage grouse hunting.

Picnicking, sightseeing and rockhounding attract many tourists and out-of-door lovers into the Last Chance, Middle Desert and Henry Mountain areas.

Future Outlook. The DSR holds a tremendous potential for expansion in the recreation field. The area is endowed with outstanding scenery and pleasing recreation features, but lacks public service and transportation developments. The recreational attractions are resource oriented. Thus, the great potential for expansion in the recreation field can come through service oriented developments.

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TABLE 3D

ESTIMATES OF PUBLIC OUTDOOR RECREATION USE FOR D.S.R.
(User Days)

County	Total State and Federal	BLM	%BLM	DSR % of State
Garfield	84,000*	16,000*	19	
Piute	45,000	5,000	11	
Sevier	150,000	20,000	13	
Wayne	110,000	15,000	14	
DSR Total	389,000	56,000	14.3	
State Total	7,770,000	-	.7	5.0

* 20% of the total of Garfield County. This percentage is a reasonable estimate of recreation use in the D.S.R.

Source of Information: State Economic Profile.

LKS:lo
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TABLE 30

ESTIMATES OF PUBLIC OUTDOOR RECREATION USE FOR D.S.R.
(User Days)

County	Total State and Federal	BLM	%BLM	DSR % of State
Garfield	84,000*	16,000*	19	
Piute	45,000	5,000	11	
Sevier	150,000	20,000	13	
Wayne	110,000	15,000	14	
DSR Total	389,000	56,000	14.3	
State Total	7,770,000	-	.7	5.0

* 20% of the total of Garfield County. This percentage is a reasonable estimate of recreation use in the D.S.R.

Source of Information: State Economic Profile.

LKS:lo
5/70

TABLE 31

ESTIMATED TOURIST DAYS

BASED ON EXPENDITURES - 1968

County	Tourist Days	% of State
Garfield*	57,000	
Piute	23,800	
Sevier	119,100	
Wayne	47,600	
DSR Total	247,500	5.1
State Total	4,763,300	

* Based on 20% of Garfield County tourist days spent in DSR.

Source of Information: State Economic Profile.

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TABLE 32

AMOUNTS OF EXPENDITURES RECEIVED BY COUNTIES

(Outdoor Recreation and Tourism)

County	Dollars $1,000.	% of Total State Dollar	County % of Utah Population	State & Local Tax Dollars Generated	Rank by % of State Dollar
Piute	38,000	0.1	--	7,000	28th
Sevier	757,000	2.0	1.0	136,500	14th
Wayne	416,000	1.1	--	73,500	22nd
DSR Total	1,211,000	3.2	1.0 +	217,000	

Source: Research Study by John D. Hunt and Perry Brown, Institute for the Study of Outdoor Recreation and Tourism, Utah State University, Logan, Utah.

Outstanding sites and recreation areas have been inventoried - many compare to State and National Park areas. Full utilization of these areas will require substantial investments in roads and public service facilities to accommodate the public. This type of development will be slow due to tight budgets of public agencies. On a State basis, it is projected that with the increasing resident population (2% annual rate) and 5% annual expansion in tourism, along with the trend of more leisure time, an annual growth rate of 10%[1] yearly average over the next decade is not unrealistic. Indications are that such a projection would be comparable to the expected growth rate of the DSR. Improvements on Utah Highways 95 and 276 and Interstate Highway #70 will contribute materially to the projected growth rate of the area. Preliminary estimates of the State Highway Department indicate some 1/2 million cars annually will travel I-70 between Green River and Salina. Traffic of this volume will require service facilities and recreational developments. Studies are already under way in the area for these considerations.

I. Mineral Production

Gypsum production tops all other minerals in the DSR. Coal ranks second. U.S. Gypsum Company and the Georgia-Pacific Company produce plaster board in their mills at Sigurd, Sevier County, which is marketed country-wide. According to local company information, in 1969 U.S. Gypsum employed an average of 64 with an annual payroll of approximately $502,000. Georgia Pacific employed 121 with a payroll of approximately $850,000. Total employes was 185 with a total payroll of $1,352,000. This amounts to approximately 8.7% of all personal income in Sevier County and approximately 3.4 times the income from farms. Approximately 4.1% of the employable age groups (25-65) is employed in mining or mineral production pursuits in the DSR as compared to 26.1% of the same age groups in agriculture.[2]

The price of silver, uranium and several other metals have increased enough in the past two years that new explorations are going on in the old mining district of Marysvale in Piute County and in eastern Wayne and Garfield Counties. Also improved economic conditions and technologies have revived mining activities and prospecting in general.

1/ State Economic Supplement.
2/ Information calculated from Economic Profile for subject Counties. U. of U. 1967.

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Mineral production in the DSR increased in value from $1,675,000. in 1961, (Table 33) to $2,480,000. in 1966. This is a 48.1% increase as compared to a 6.6% increase for the State over the same period of time. The 1966 value of minerals ($2,480,000.) amounts to 23% of the total value of all agricultural products sold in 1964 in the DSR and 12.7% of the total personal income.

From 1956 to 1965 Garfield County, which ranks fourth in the State in total uranium and vanadium production, produced annually 2580 tons with a yield of 25,000 pounds of U308 and 70,000 pounds of V205. Of the total production 52.1% was taken from the Trachyte area east of the Henry Mountains and an additional 4% from the remainder of the east Henry Mountain area. Production of various mining areas from 1956-1965 was distributed as follows:

Areas as designated by A.E.C.	
Circle Cliffs	13.5%
Fremont	2.7%
Little Rockies	26.8%
Poison Springs	4.9%
Trochyte	52.1%
	100.0%

Area designated in this report	
Circle Cliffs, Waterpocket Fold & Southern Teasdale Anticline	16.2%
SouthernHenry Mtns.	26.8%
East Henry Mtn.	56.0%
Orange Cliffs	1.0%
	100.0%

(Taken from Uranium Deposits of Garfield County, Utah; Utah Geological and Mineralogical Survey. Special Studies 22, Sept. 1967.)

There is evidence of gold, silver and copperin wide areas of the Henry Mountains. Thousands of claims are still held by residents of Wayne and Garfield Counties, but so little work has been done in recent years that it is difficult to assess their extent and value.

Piute County was once a substantial producer of gold and silver, copper, lead and zinc, the value running into millions of dollars. Most of the mines in the county are now idle because conditions are unfavorable for exploiting the deeper, low-grade ores. A few developments have been made during the last decade from various mining properties. The only volume producer has been the Deer-Trail Mine.

Uranium in commercial quantities was discovered shortly after World War II in the Durkee District near Marysvale. A uranium ore buying station located at Marysvale for several years was closed in March 1957.

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TABLE 38

VALUE OF MINERAL PRODUCTION 1961-1966
(Thousands of Dollars)

County	1961	1962	1963	1964	1965	1966	Mineral Production 1966 in Order of Value
Garfield	246	224	159	W	421	730	Petroleum, sand and gravel, uranium ore, vanadium, stone.
Piute	W	W	W	506	559	586	Zinc, lead, silver, gold, sand and gravel, clays, copper, uranium ore.
Sevier	1,291	1,328	1,260	1,223	1,298	1,164	Gypsum, coal, clays, sand and gravel, salt.
Wayne	137	W	W	2	27	-	(None Listed)
DSR Total	1,674	1,552	1,419	1,731	2,305	2,480	
State Total	416,789	410,412	385,423	391,430	431,592	444,262	

W - Withheld to avoid disclosure

Source of Information: U.S. Bureau of Mines Mineral Yearbook 1962, 1964, 1966.

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Alunite has long offered a challenge to investment capital, but efforts to develope it have not been encouraging. Reserves are estimated by the U.S. Bureau of Mines at 30,000,000 tons. At least 50% of the reserve is high grade. Two crushing and bagging plants were built in Marysvale in the 1950's and considerable alunite was marketed to farmers and fertilizer mixing plants. These enterprises were not successful and there has been little or no activity in recent years.

Sand and gravel deposits are plentiful for all uses at the present time.

Sevier County's most important mineral is gypsum. Reserves at Sigurd are estimated at 12,000,000 tons of gypsum rock. It is estimated that $800,000 worth of rock is quarried each year. Gold, lead, copper and zinc are metals of some potential but conditions of price and economic feasibility are limiting factors for production at present.

Coal fields extend several miles into Sevier County from the Emery County line. The Salina Canyon field, best known in the area, is in the drainage of Salina Creek. Coal mining was once a major industry in the County, but production has declined to one major producer, the Southern Utah Fuel Company of Salina.

Fullers Earth and Bentonite are produced by Western Clay and Metals Company at its Aurora pit and is processed at its plant there for use in mineral filters, decolorizing agents, rotary drilling, muds, roofing materials and pond lining.

Salt deposits near Redmond are mined consistantly for commercial and livestock uses.

Sand and gravel are produced in varying quantities for road construction and commercial concrete use.

Mineral production in Wayne County has been limited. Gold has been found in small quantities in the Giles-Hanksville area but all time production would probably not exceed $5000.00. Small amounts of copper, silver, lead and zinc have been reported in the Miners Mountain area but not of commercial significance.

Wayne County was the scene of extensive uranium prospecting in the 1950's. Promising discoveries were found in the lower Muddy River, Hanksville and Notom Bench areas. Production began in 1955 but never did reach a substantial volume. In 1956, the biggest year, the output totalled 1793 tons. At one time seven mines were producing simultaneously but the drastic reduction in purchases by A.E.C. resulted in the closing of all Wayne County mines.

Oil and Gas exploration work in the DSR has shown increased activity during 1969 and 1970. Shell Oil Company and Phillips Oil Company have done extensive seismic and electromagnic exploration work. Over the years several drillings have been made in the area without apparent success as to development of any oil or gas wells. Recent seismic work may lead to future drillings, especially in the Sevier-Piute County areas.

Sand and gravel deposits are plentiful. Major demands are for road construction with minor amounts for commercial concrete needs.

Extensive increases in mineral production in the DSR area are not expected until ore prices are more favorable to meet the higher costs of processing and recovering the deeper low-grade ores.

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